MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/pera/

# BOARD AND CODE ADMINISTRATION DIVISION NOTICE OF ACCEPTANCE (NOA)

Hager Companies 139 Victor Street, Saint Louis, Missouri 63104

#### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA -Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Hager series "4500" Rim and SVR Panic Exit Devices, "3800" Mortise lock w/ Deadbolt, "3400" Cylindrical lockset w/ "3100" Dead bolt and "3400" Cylindrical lock set w/ "3100" Dead bolt - Components Approval

**APPROVAL DOCUMENT:** Drawing No. **HAG.11001**, titled "4500 series Exit Devices, 3800 series Mortise lock, 3400 & 3500 cylindrical lock & 3100 deadlock", sheets 1 through 6 of 6, dated Aug 08, 2012, prepared by NU-WIND Engineering, signed and sealed by Christian Langley, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Section.

## MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**Limitations:** 1. This component may be used as an equal alternative in corresponding lock(s) in 16 ga Commercial Sterdoors, holding current NOA. Double doors must be secured with (2) Hager **275D** surface bolts at in-active panel.

- 2. Lower of design pressure rating of these components or the door shall control.
- 3. Electrical device is not part of this approval and must be reviewed by corresponding authority.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, Tainan, Taiwan or Chia, Taiwan or New Taipei, Taiwan and series and following statement: "Miami-Dade County Product Control approved".

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1 and evidence pages E-1, as well as approval document mentioned above. The submitted documentation was reviewed by Ishaq I. Chanda, P.E.



NOA No 11-1219.14 Expiration Date: August 16, 2017 Approval Date: August 16, 2012 Page 1

### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections
- 2. Drawing No. **HAG.11001**, titled "4500 series Exit Devices, 3800 series Mortise lock, 3400 & 3500 cylindrical lock & 3100 deadlock", sheets 1 through 6 of 6, dated Aug 08, 2012, prepared by NU-WIND Engineering, signed and sealed by Christian Langley, P. E.

#### B. TESTS

- 1. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
  - 6) Forced Entry Test, per FBC 3603.2 (b) and TAS 202-94

Along with marked-up drawings and installation diagram of Hager series "4500" Rim and SVR Panic Exit Devices, "3800" Mortise lock w/ Deadbolt, "3400" Cylindrical lockset w/ "3100" Dead bolt and "3400" Cylindrical lock set w/ "3100" Dead bolt, issued by Certified Testing Lab, Test Report No. CTLA 2045W, -W1, -W2 & -W3, dated 08/05/11, signed and sealed by Ramesh Patel, P.E. (Note: This test reports have been revised by addendum letter dated March 28, 2012 & July 23, 2012, issued by Certified Testing lab, signed & sealed by Ramesh Patel, P.E.)

#### C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC 2010, dated Nov 11, 2011, May 08, 2012, July 03, 2012 and last revised on 08/01/12, prepared by NU-WIND Engineering, signed and sealed by Christian Langley, P. E.

## D. QUALITY ASSURANCE

1. Miami Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

#### E. MATERIAL CERTIFICATIONS

1. Tensile Test report No. 0473T, dated Aug.08, 2011, prepared by Certified Testing lab for steel skin samples, tested per ASTM A370-96, signed and sealed by Ramesh Patel, P.E.

#### F. STATEMENTS

- 1. Statement letter of conformance to FBC 2010, dated Jul 03, 2012, prepared by NU-WIND Engineering, signed and sealed by Christian Langley, P. E.
- 2. Statement of lab compliance, as part of above referenced test reports.
- 3. Addendum letter dated March 28, 2012 & July 23, 2012, issued by Certified Testing lab, signed & sealed by Ramesh Patel, P.E.
- 4. Distributor agreement between Hager Companies, USA and TEC, Taiwan dated November 01, 2011.
- 5. Distributor agreement between Hager Companies, USA and TLMI, Taiwan dated November 01, 2011.
- 6. Distributor agreement between Hager Companies, USA and ITMMC, Taiwan dated November 01, 2011.

#### G. OTHER

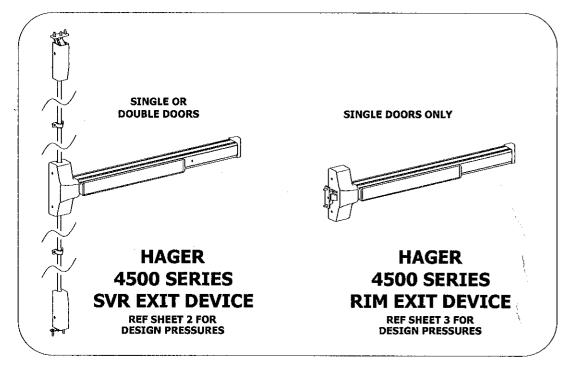
- 1. Test proposal # 10-0163 dated 04/20/10 approved by BCCO.
- 2. Hager's panic exit device and Mortise and Cylindrical lock technical publications and catalogs.

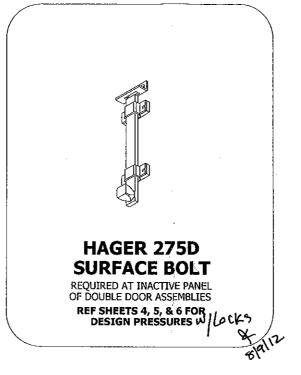
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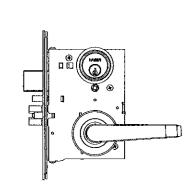
Product Control Examiner NOA No 11-1219.14

Expiration Date: August 16, 2017 Approval Date: August 16, 2012

# DOOR LOCK HARDWARE

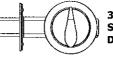




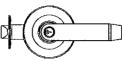


HAGER 3800 SERIES MORTISE LOCKSET WITH DEADBOLT

REF SHEET 4 FOR DESIGN PRESSURES

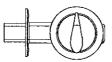


3100 SERIES DEADBOLT

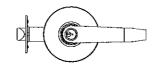


HAGER 3400 SERIES
CYLINDRICAL LOCK
+ 3100 SERIES
DEADBOLT

REF SHEETS 4 & 5 FOR DESIGN PRESSURES



3100 SERIES DEADBOLT



HAGER 3500 SERIES
CYLINDRICAL LOCK
+ 3100 SERIES
DEADBOLT

REF SHEETS 4 & 5 FOR DESIGN PRESSURES

## **GENERAL NOTES**

- 1. THESE COMPONENTS ARE APPROVED AS EQUAL ALTERNATIVE HARDWARE FOR USE WITH HOLLOW METAL SIDE-HINGED OUTSWING DOORS HOLDING A CURRENT NOA. LOWEST DESIGN PRESSURE RATING OF THE DOOR SYSTEM OR THESE COMPONENTS SHALL GOVERN.
- 2. THESE COMPONENTS HAVE BEEN EVALUATED FOR AND COMPLY WITH THE 2010 FLORIDA BUILDING CODE.
- 3. THESE COMPONENTS ARE VALID FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
- 4. THESE COMPONENTS ARE VALID FOR USE IN CONJUNCTION WITH SMALL & LARGE MISSILE IMPACT RESISTANT PRODUCTS.
- 5. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH SYSTEMS THAT INCORPORATE THESE COMPONENTS SHALL BE DETERMINED BY OTHERS ON A SITE-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE.
- 6. THIS PRODUCT EVALUATION DOCUMENT IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THOSE DETAILED HEREIN, A LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE-SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS APPROVAL AND APPLY FOR MIAMI-DADE COUNTY PRODUCT CONTROL ONE-TIME NOTICE OF ACCEPTANCE.

## SYSTEM NOTES

DOOR SYSTEM SHALL HAVE THE FOLLOWING MINIMUM SPECIFICATIONS:

DOOR FRAME:

16ga (0.051") MIN GALVANNEALED STEEL (ASTM A653 TYPE 'B'), Fy=43.6 KSI MIN

- •• FRAME STRIKE REINF: 1.375"X8.25" (14ga, 0.074")
- DOOR SLAB THICKNESS:

13/4" MIN OVERALL

- DOOR PANEL FACE SHEETS:
   16ga (0.053") MIN GALVANNEALED STEEL
   (ASTM A653 TYPE 'B') OR STAINLESS STEEL
   (AISI 304 SERIES), Fy = 43.6 KSI MIN
- DOOR PANEL CORE FILL OPTIONS:
- •• STEEL RIBS
- •• APPROVED POLYSTYRENE FOAM COMPLYING WITH FBC REQUIREMENTS
- PAPER HONEYCOMB

- DOOR PANEL REINFORCEMENT:
- •• STEEL RIB CORE:
  BOX FORMED FROM (2) 20ga MIN GALV
  STEEL CHANNELS
- APPROVED POLYSTYRENE FOAM OR PAPER HONEYCOMB CORES:
   BOX FORMED FROM (2) 14ga MIN GALV STEEL CHANNELS
- •• LOCK STILE REINF CHANNEL: 3.5"x1.66" (12ga, 0.99") - FULL HEIGHT
- •• TOP/BOT CHANNEL: 1.688"x1.439" (16ga, 0.051") FULL WIDTH
- FRAME STRIKE REINFORCEMENT:
- •• JAMB FRAME STRIKE REINF: 14ga (MORTISE, CYL, & DEADBOLT ONLY)
- •• ASTRAGAL STRIKE REINF: 12ga (MORTISE, CYL, & DEADBOLT ONLY)

# **LIMITATIONS**

1. DOOR FRAME INSTALLATION LIMITED TO CONCRETE, GROUT-FILLED BLOCK, OR WOOD HOST STRUCTURE AT HEAD & JAMBS. INSTALLATION TO WOOD HOST STRUCTURE SHALL BE LIMITED TO  $\pm 50$  PSF MAX DESIGN PRESSURE.

ELECTRICAL DEVICE INSTALLATION & FIRE RATINGS
ARE NOT PART OF THIS APPROVAL - ALL SUCH INSTALLATION
SHALL BE REVIEWED BY APPLICABLE BUILDING AUTHORITY.

Approved as complying with the Plantic Building Code
Base AUG 1612012
NOAV 11-1219-14
Minut Basic Product Control
By Shag I. Liquida

CL CHRISTIAN LANGUE

EXT DEVICES

MORTISE LOCK

CYLINDAR LOCK

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CYLINDAR LOCK

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CYLINDAR LOCK

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DEADLOCK

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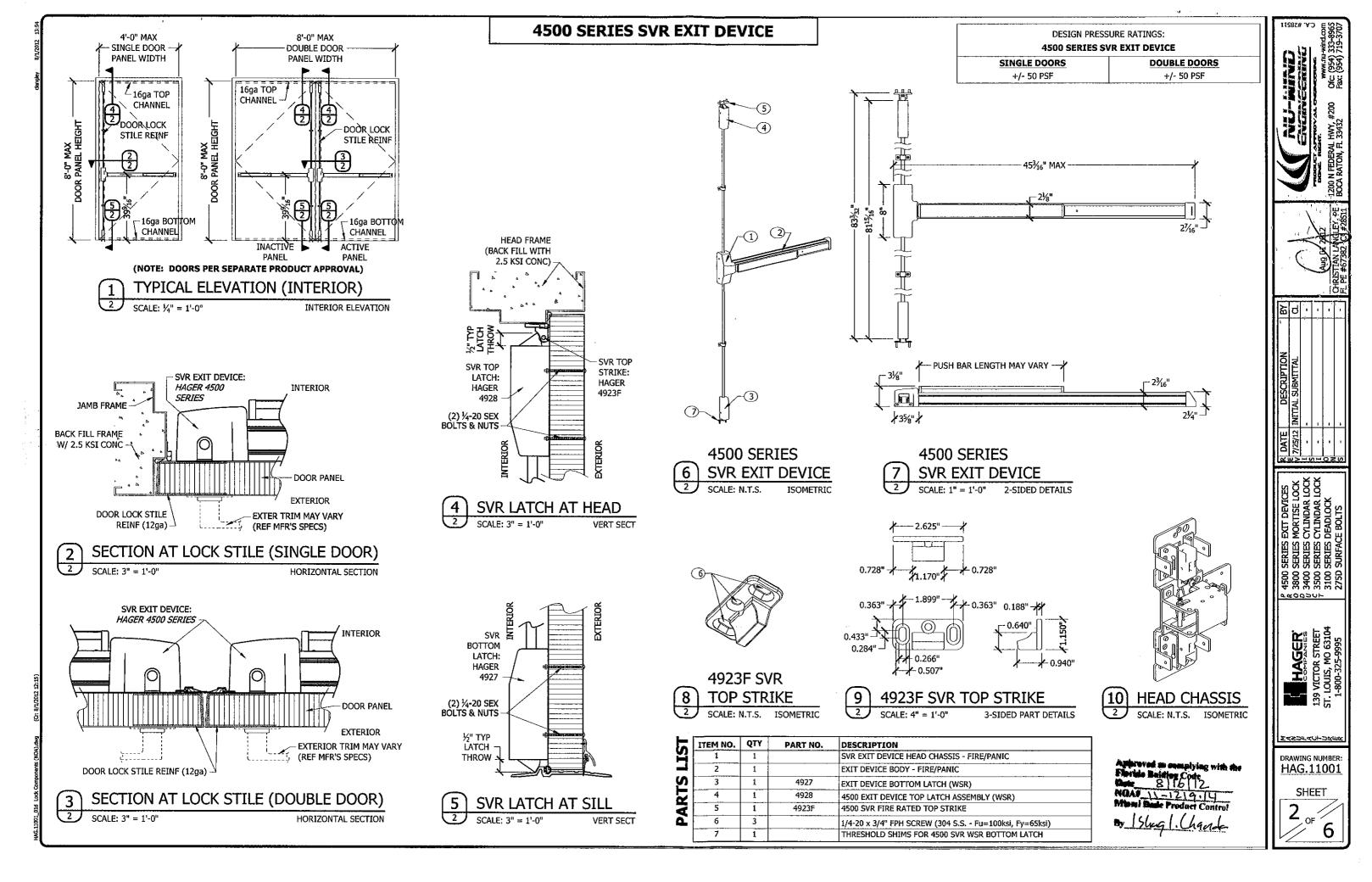
# 4500 SERIES F # 3800 SERIES F # 3400 SERIES C # 3500 SERIES C 3100 SERIES D

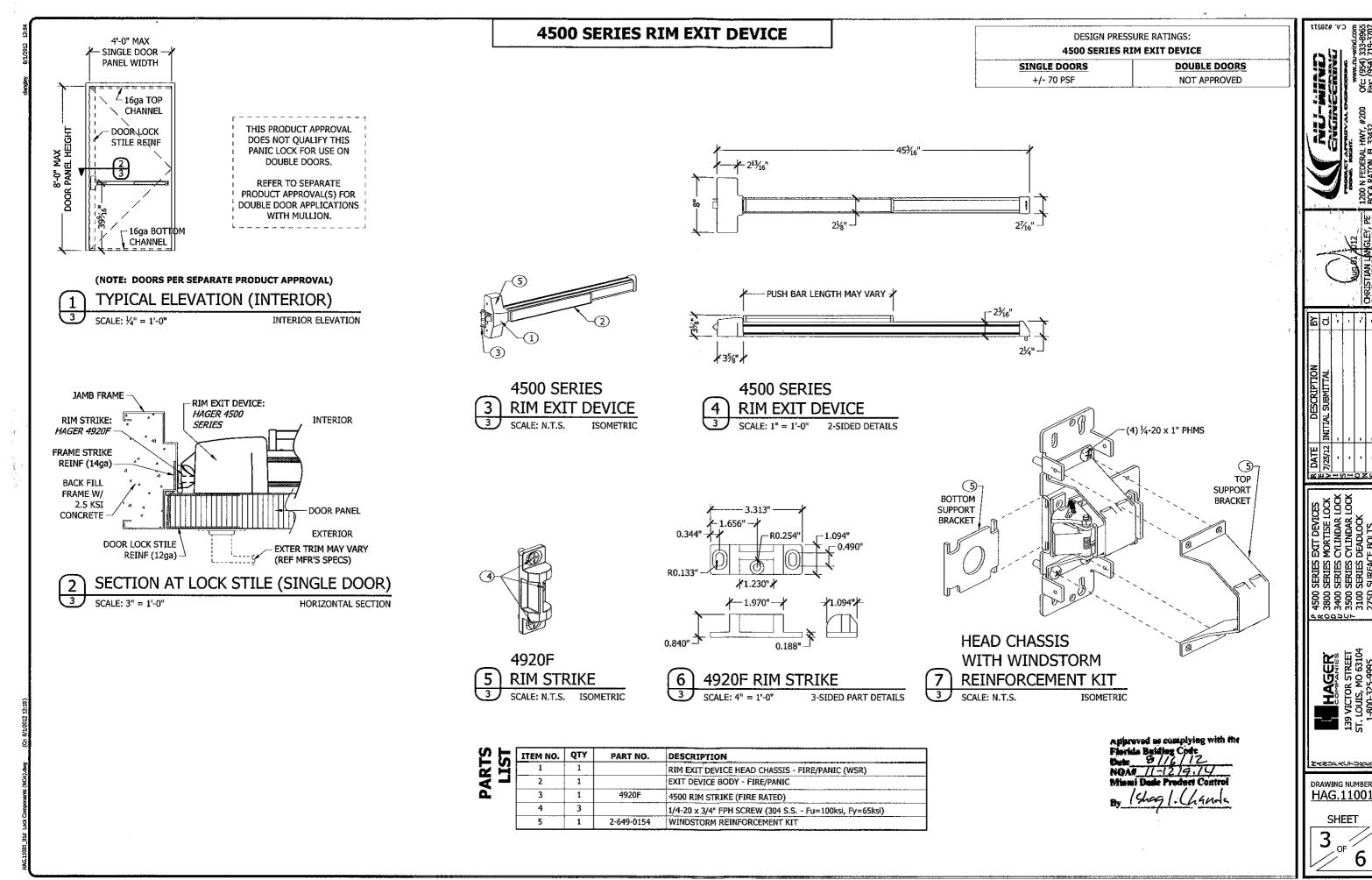
> HAGGER COMPANIES 39 VICTOR STREET LOUIS, MO 63104

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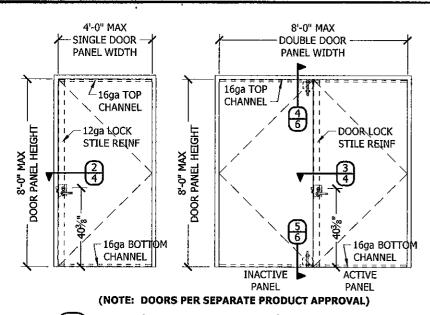
DRAWING NUMBER

SHEET 1 OF 6





SHEET



TYPICAL ELEVATION (INTERIOR)

SCALE: ½" = 1'-0" INTERIOR ELEVATION

JAMB FRAME

MORTISE LOCKSET:

HAGER 3800 SERIES

LEVER OR

KNOB MAY

VARY

(REF MFR'S

SPECS)

FRAME STRIKE
REINF (14ga)

DOOR LOCK STILE
REINF (12ga)

2 SECTION AT LOCK STILE (SINGLE DOOR)

HORIZONTAL SECTION

SCALE: 3" = 1'-0"

MORTISE LOCKSET
WITH DEADBOLT:
HAGER 3800 SERIES

SURFACE BOLTS:
HAGER 275D

INTERIOR

DOOR
PANEL

ASTRAGAL STRIKE REINF:
1.374"x8.875"x12ga (0.108")

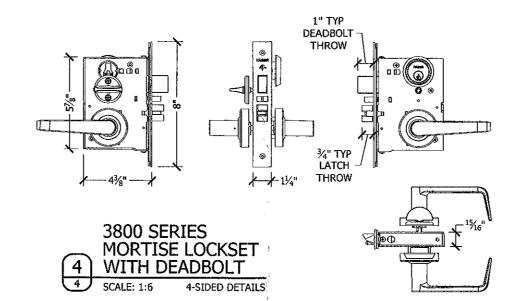
DOOR LOCK STILE REINF (12ga)

LEVER OR KNOB MAY VARY (REF MFR'S SPECS)

SECTION AT LOCK STILE (DOUBLE DOOR)

SCALE: 3" = 1'-0" HORIZONTAL SECTION

## 3800 SERIES MORTISE LOCKSET WITH DEADBOLT



DESIGN PRESSURE RATINGS:

### 3800 SERIES MORTISE LOCKSET WITH DEADBOLT

SINGLE DOORS

DOUBLE DOORS

+/- 80 PSF (¼-20 STRIKE SCREWS) +/- 61 PSF (#12 STRIKE SCREWS)

+/- 50 PSF (#12 STRIKE SCREWS)

3800 SERIES MORTISE LOCKSET WITH DEADBOLT

SCALE: 1:4 EXPLODED ISOMETRIC

Approved as complying with the Florida Building Code
Date: 8/6/2
NOAR\_1-72/9./4
Miami Build Product Control
By Shaq | Chaule

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	2669xxxx	LOCK BODY (WINDSTORM RATED)
2	1	26690xxx	MORTISE LOCK - LOCK FRONT
3	1	3918	TAPERED CYLINDER COLLAR
4	1	3902	MORTISE LOCK CYLINDER W/ SCHLAGE L CAM
5	1	266904xx	THUMBTURN
6	1	2669004x	SPRING CAGE ASSEMBLY - INSIDE
7	1	2669004x	SPRING CAGE ASSEMBLY - OUTSIDE
8	1	2-669-0389	DUST BOX
9	2	266900xx	ROSE
10	2		3800 SPRING CAGE THRU-BOLTS
11	2	26690657	SQUARE SPINDLE

ITEM NO.	QTY	PART NO.	DESCRIPTION
12	1	3985	1-3/16" SQ CORNER CURVED LIP STRIKE
13	1		CYLINDER SPACER FOR SECURITY COLLARS
14	1		WAVE WASHER
15	1	26690xxx	EXTERIOR MORTISE LOCK LEVER - STYLE/FINISH MAY VARY
16	1	26690xxx	INTERIOR MORTISE LOCK LEVER - STYLE/FINISH MAY VARY
17	2		#12 x 3/4" FPH COMBO SCREW (302 S.S.)
17a	2		#12x 3/4" FPH COMBO SCREW OR 1/4-20 x 3/4" FPHMS (302 S.S Fu=100ksi, Fy=65ksi)
18	2		#6 x 6mm FPHMS (UNDERCUT)
19	2		M4 x 40mm FPHMS
20	2		#8 x 5/8" FPH COMBO SCREWS

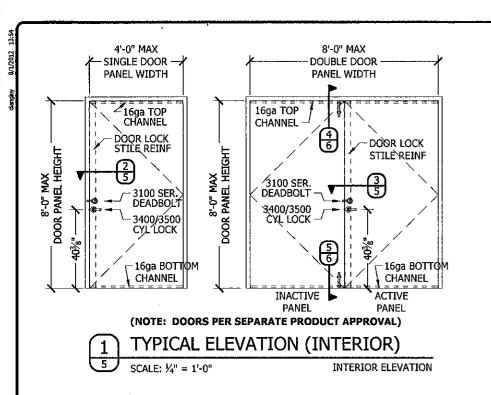
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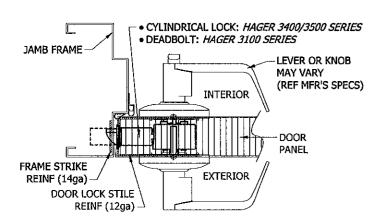
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HAG.11001

SHEET 4





SECTION AT LOCK STILE (SINGLE DOOR) HORIZONTAL SECTION

• CYL LOCK: HAGER 3400/3500 SERIES • DEADBOLT: HAGER 3100 SERIES SURFACE BOLTS: INTERIOR HAGER 275D ASTRAGAL STRIKE REINF: EXTERIOR 1.374"x8.875"x12ga (0.108") DOOR LOCK STILE REINF (12ga) LEVER OR KNOB MAY VARY (REF MFR'S SPECS)

SECTION AT LOCK STILE (DOUBLE DOOR) (5) SCALE: 3" = 1'-0" HORIZONTAL SECTION

# 3400 / 3500 SERIES CYLINDRICAL LOCK **WITH 3100 SERIES DEADBOLT**

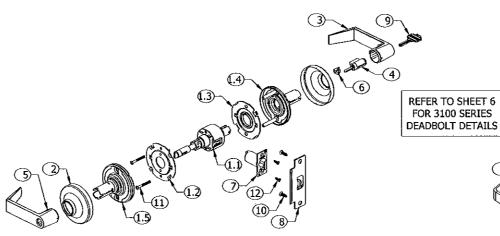
REFER TO SHEET 6 FOR 3100 SERIES DEADBOLT DETAILS

½" TYPICAL LATCH THROW

LEVER OR KNOB,

MAY VARY

**3400 SERIES** CYLINDRICAL LOCK



3400 SERIES CYLINDRICAL LOCK EXPLODED ISOMETRIC

H	ITEM NO.	QTY	PART NO.	DESCRIPTION
LIST	1.1	1	2639xxxx	LOCK CHASSIS ASSEMBLY
	1,2	1	26393436	INSIDE MOUNTING PLATE
Ś	1.3	1	26393437	OUTSIDE MOUNTING PLATE
	1,4	1	2639xxxx	OUTSIDE ROSE ASSEMBLY
ART	1.5	1	2639xxxx	INSIDE ROSE ASSEMBLY
₽	2	2	2639xxxx	INSIDE/OUTSIDE ROSE
	3	1	2639xxxx	EXTERIOR LEVER - STYLE/FINISH MAY VARY
	4	1	-	CYLINDER (OPTIONAL)
	5	1	2639xxxx	INTERIOR LEVER - STYLE/FINISH MAY VARY
	6	1	-	CYLINDER RETAINER
	7	1	3944	2-3/4" DEAD LATCH
	8	1	3935	ASA STRIKE 1-5/16"
	9	2	-	KEY
	10	2		#12 x 3/4" FPH COMBO SCREW (GRADE 2)
	11	2	·	CUSTOM #12-24 x 2-11/16" OPHMS
	12	2		#8 x 3/4" FPH COMBO SCREW

REFER TO SHEET 6 FOR 3100 SERIES DEADBOLT PARTS

**DESIGN PRESSURE RATINGS:** 

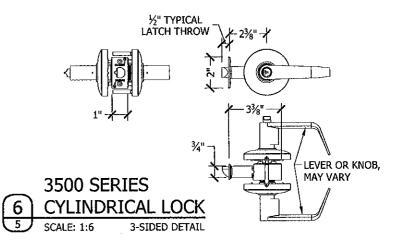
3400 SERIES CYLINDRICAL LOCK WITH 3100 SERIES DEADBOLT

SINGLE DOORS **DOUBLE DOORS** +/- 50 PSF +/- 70 PSF

DESIGN PRESSURE RATINGS:

3500 SERIES CYLINDRICAL LOCK WITH 3100 SERIES DEADBOLT

SINGLE DOORS DOUBLE DOORS +/- 50 PSF +/- 50 PSF



3500 SERIES CYLINDRICAL LOCK

TEM NO.	QTY	PART NO.	DESCRIPTION
1	1	2639xxxx	LOCK CHASSIS ASSEMBLY
2.1	1	26393522	OUTSIDE MOUNTING PLATE
2.2	1	2639xxxx	ROSE
2.3	1	26393520	OUTSIDE ROSE LINER
3.1	1	2639xxxx	ROSE
3.2	1	26393519	INSIDE ROSE LINER
3.5	i	26393521	INSIDE MOUNTING PLATE
4	1	2639xxxx	EXTERIOR LEVER - STYLE/FINISH MAY VARY
5	1	2639xxxx	INTERIOR LEVER - STYLE/FINISH MAY VARY
6	1	-	KEYED CYLINDER (OPTIONAL)
7	2	26393523	REMOVABLE THRU-BOLT
8	1	3948	2-3/4" DEAD LATCH
9	1	3935	ASA STRIKE 1-5/16"
10	2		#12 x 3/4" FPH COMBO SCREW (GRADE 2)
11	2		#8 x 3/4" FPH COMBO SCREW
12	4		CUSTOM #12-24 x 2-11/16" OPHMS
13	1		CYLINDER RETAINER

REFER TO SHEET 6 FOR 3100 SERIES DEADBOLT PARTS

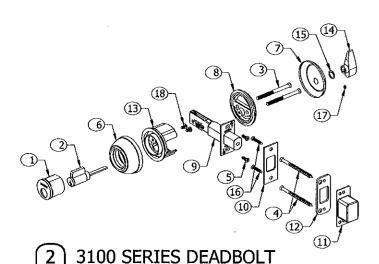
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SHEET

3-SIDED DETAIL

SCALE: 1:6

SCALE: 1:4

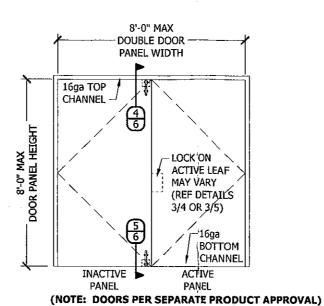


	ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	1	2639xxxx	EXTERIOR CYLINDER HOUSING
ı	2	1	-	KEYED CYLINDER
	3	2		CUSTOM #12-24 x 2-5/8" FPHMS
	4	2		CUSTOM #10 x 3" FPHWS (GRADE 2)
Ċ	5	2		#8 x 3/4" FPH COMBO SCREW
	6	1	263931XX	ROSE
	7	1	2639315X	THUMB TURN ROSE
	8	1		THUMB TURN ROSE LINER ASSEMBLY
	9	1	3940	DEADBOLT LATCH (2-3/4" BACKSET)
	10	1	3930	DEADBOLT STRIKE
	11	1	26393109	DEADBOLT DUST BOX
	12	1	26393108	DEADBOLT WOOD REINFORCER
	13	1	2639314X	CYLINDER FIRE SHIELD
	14	1		THUMB TURN
	15	1		THUMB TURN WASHER
į	16	2		#8 x 1-1/4" FPH COMBO SCREW (GRADE 2)
	17	1		#6-32 x 3/16" FP SET SCREW
	18	2		#8-32 x 1/4" PHMS

EXPLODED ISOMETRIC

## **275D SURFACE BOLT**

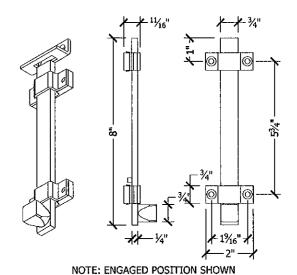
FOR USE ON INACTIVE DOOR LEAF (REF SHEETS 4 & 5)



SCALE: 1/4" = 1'-0"

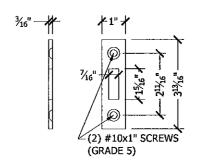
TYPICAL ELEVATION (INTERIOR)

Approved a complying with the Floride Belding Code
These AV4 16, 2012
NOA# 17-72 (9.79
Minus Dade Product Control
By 16hag 1. Chan 2



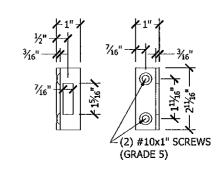
NOTE: ENGAGED POSITION SHOWN

6 275D SURFACE BOLT
6 SCALE: 1:4 ISOMETRIC + 2-SIDED DETAIL



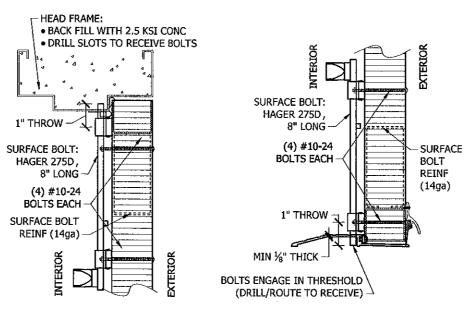
SURFACE BOLT MORTISE STRIKE

SCALE: 1:4 2-SIDED DETAIL



SURFACE BOLT ANGLED STRIKE

6 SCALE: 1:4 2-SIDED DETAIL



INTERIOR ELEVATION



SURFACE BOLTS AT INACTIVE PANEL SILL

SCALE: 3" = 1'-0" VERT SECT



PARTS LIST

01\_01d Lock Components (NOA).dwg (Cr. 8/1/2

SHEET 6

HAG.11001